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Yale - Total Cholesterol

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John Stack¹, Gary Cline¹

¹Yale University

Mouse Metabolic Phenotyping Centers
Tech. support email: info@mmpc.org



Lili Liang

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Protocol status: Working

We use this protocol and it's working

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Keywords: Cholesterol, total cholesterol summary, total concentration of cholesterol, total cholesterol, cholesterol ester, cholesterol oxidase, cholesterol esterase, cholesterol oxidase with formation, cholesterol, hydrogen peroxide, peroxidase, total concentration

Abstract

Summary:

Procedure used to determine the total concentration of cholesterol present in blood, serum, and plasma. Cholesterol esters are hydrolysed by cholesterol esterase. Cholesterol is then oxidized by cholesterol oxidase with formation of hydrogen peroxide. Peroxidase uses the hydrogen peroxide, phenol, and 4-aminotipyrine to form a quinoneimine dye which is measured at 500 nm.

Materials

MATERIALS

⊗ Cholesterol Rapid Liquid Reagent **Cliniqa Catalog #R85464**

⊗ Multi Analyte Calibrator **Prolabs(cliniqa) Catalog #R60010**

⊗ Assayed Control Serum 1 **Prolabs(cliniqa) Catalog #R83082**

⊗ Assayed Control Serum 2 **Prolabs(cliniqa) Catalog #R83083**

Reagent Preparation:

Cholesterol Rapid Liquid Reagent: As supplied by vendor

Multi Analyte Calibrator: Add the appropriate amount of water (6.5mL) to the chemical control bottle. Invert to mix, allowing 15 minutes for the reagent to settle.

Assayed Control Serum 1: Add the appropriate amount of water (6.5mL) to the chemical control bottle. Invert to mix, allowing 15 minutes for the reagent to settle.

Assayed Control Serum 2: Add the appropriate amount of water (6.5mL) to the chemical control bottle. Invert to mix, allowing 15 minutes for the reagent to settle.

Troubleshooting

Before start

Analysis by automated system Cobas Mira Plus



- 1 Calibrate Cobas for Total Cholesterol analysis by running a multi analyte standard and two control serum.
- 2 Sample handling as performed by Cobas Mira Plus.
 - a) Pipette 3 μ L of sample into a cuvette slot.
 - b) Add 275 μ L of Cholesterol Rapid Liquid Reagent.
 - c) Mixture is incubated at 37°C for 10 minutes.
 - d) Absorbance is measured at 500nm.